

**REMARKS**

The Official Action mailed May 18, 2005, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on November 26, 2003. However, the Applicants have not received acknowledgment of the Information Disclosure Statement filed on March 4, 2004. The Applicants respectfully request that the Examiner provide an initialed copy of the Form PTO-1449 evidencing consideration of the Information Disclosure Statement filed March 4, 2004. A further Information Disclosure Statement is submitted herewith and consideration of this Information Disclosure Statement is respectfully requested.

Claims 1-40 were pending in the present application prior to the above amendment. Claims 8, 16, 24, 32 and 40 have been canceled, independent claims 1, 9, 17, 25 and 33 have been amended to better recite the features of the present invention, and dependent claims 4-7, 12-15, 20-23, 28-31 and 36-39 have been amended to correspond with the amended independent claims. Accordingly, claims 1-7, 9-15, 17-23, 25-31 and 33-39 are now pending in the present application, of which claims 1, 9, 17, 25 and 33 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The Official Action rejects claims 1-40 under 35 U.S.C. § 112, second paragraph. Regarding the independent claims, the Official Action asserts that "a first substrate is indicated with elements above it, then further into the claim other substrates are indicated in which it is ambiguous whether those substrates are additional substrates or the first substrate reiterated" (page 2, Paper No. 05122005). In response, as noted in detail above, independent claims 1, 9, 17 and 33 have been amended to recite an electronic circuit device comprising first, second and third substrates, and independent claim 25 has been amended to recite an electronic circuit device comprising first and

second substrates. The Applicants respectfully submit that claims 1-40 are definite as amended.

Regarding dependent claims 8 and 16, the Official Action asserts that a deflection plate is "not understood" and is "completely unknown" (*Id.*). Also, although not specifically mentioned in the Official Action, claims 24, 32 and 40 also recite a deflection plate. In response, claims 8, 16, 24, 32 and 40 have been canceled. Therefore the § 112 rejections of claims 8 and 16 are moot. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 112 are in order and respectfully requested.

The Official Action rejects claims 1, 2, 7-10, 15-18, 23-26, 31-34, 39 and 40 as anticipated by U.S. Patent No. 5,268,679 to Shannon. The Applicants respectfully submit that an anticipation rejection cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent claims 1, 9, 17, 25 and 33, as amended, are directed to an electronic circuit device having parallel processing of signals where a first light emitted from a first light source and a first optical shutter and a first optical sensor are used together to make it possible to exchange data (convert a first light into a first electric signal by a first electronic circuit) between substrates; and where a second light emitted from a second light source and a second optical shutter and a second optical sensor are used together to make it possible to exchange separate data (convert a second light into a second electric signal by a second electronic circuit) between substrates. In this way, data signals can be processed in parallel to lower frequency of data signals. Further, by using an optical signal without using an electric wiring between substrates,

data exchange between the substrates is realized to reduce electromagnetic noises. Shannon does not teach parallel processing of signals, either explicitly or inherently.

Since Shannon does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

The Official Action rejects claims 3-6, 11-14, 19-22, 27-30 and 35-38 as obvious based on the combination of Shannon, U.S. Patent No. 5,583,570 to Yamada, U.S. Patent No. 5,491,571 to Williams et al., and U.S. Patent No. 5,738,731 to Shindo et al. The Applicants respectfully submit that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

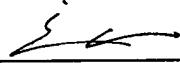
As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Please incorporate the arguments above with respect to the deficiencies in Shannon. Yamada, Williams and Shindo do not cure the deficiencies in Shannon. The Official Action relies on Yamada, Williams and Shindo to allegedly teach the features of the dependent claims. Specifically, the Official Action relies on Yamada, Williams and Shindo to teach the "level of crystallinity" for "the circuits and photodiodes" of Shannon (pages 10-11, Paper No. 05122005). However, Shannon, Yamada, Williams and Shindo, either alone or in combination, do not teach or suggest parallel processing of signals, as provided in the independent claims of the present application and described in detail above.

Since Shannon and Yamada, Williams and Shindo do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

  
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